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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/015,670	12/17/2001	Efim S. Statnikov	5600/DIV	7827

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EXAMINER	
WYSZOMIERSKI, GEORGE P	
ART UNIT	**PAPER NUMBER**
1742	6

DATE MAILED: 11/20/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/015,670	STATNIKOV, EFIM S.	
	Examiner	Art Unit	
	George P Wyszomierski	1742	

-- Th MAILING DATE of this communication app ars on th cover she t with the correspondenc address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *16 September 2003*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *37-44* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *37, 38, 40-44* is/are rejected.

7)☒ Claim(s) *39* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

13)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

a) ☐ The translation of the foreign language provisional application has been received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other:

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 37, 42, 43 and 44 are rejected under 35 U.S.C. 103(a) as being unpatentable over McMaster (U.S. Patent 3,650,016), for reasons of record in the prior Office Action (paper no. 4).

Briefly, McMaster discloses a device which includes a source of vibrational energy and a transducer for transmitting this energy for treatment of a product. McMaster further discloses features that correspond to the "means for withdrawing...by positioning said transducer" as presently claimed, to the "wave guide" of claim 42 and to the "peen" of claim 44. With regard to instant claim 43, McMaster column 6, lines 1-8 indicate that the prior art apparatus may be used to treat a variety of fastener systems, which would include those that are "difficult" to reach as presently claimed, and the prior art configuration appears to be "efficient" as set forth in the instant claim.

McMaster does not appear to use the words "favorable residual stress pattern", "reduced structural defects", and "reduced residual stresses" as recited in the instant claims. This difference is not seen as resulting in a patentable distinction between the prior art and the invention because the actual result of using the McMaster apparatus is equivalent to that of the present invention, i.e. the formation of a desired stress level in the product being treated. Therefore, the McMaster disclosure, would have taught one of skill in the art to employ the prior art apparatus in such a way as to produce a desired amount of residual stress in the objects being treated by that apparatus. The instant claims do not define any specific residual stress

either qualitatively or quantitatively, and thus whatever that amount of residual stress may result from use of the McMaster apparatus would fall within the purview of what is presently claimed. Consequently, a prima facie case of obviousness is established between the disclosure of McMaster and the presently claimed invention.

3. Claims 38, 40 and 41 are rejected under 35 U.S.C. 103(a) as being unpatentable over McMaster, as above, in view of Dryga et al. (U.S. Patent 5,035,142).

As stated supra, McMaster discloses an apparatus for vibratory treatment of materials to create desired stresses therein, including parts substantially as defined in the instant claims. Dryga indicates that vibratory treatment apparatuses are conventionally used to treat welded materials (see Dryga column 1, lines 13 and 21-23). The gist of the Dryga disclosure is that such apparatuses conventionally include means for in-process measuring so that one of skill in the art can tune the vibrations to the resonant frequency of the material being treated, i.e. as defined in instant claims 40 and 41. This disclosure of Dryga (and its attendant advantages) would have motivated one of ordinary skill in the art to incorporate the presently claimed features of the invention into an apparatus as described by McMaster.

4. In a response filed September 16, 2003, Applicant has canceled claims 21, 45 and 46, and amended claim 37. The response renders moot the requirement for restriction and overcomes the rejections based on 35 USC 112, second paragraph.

Applicant alleges that the McMaster reference should not be applied against the instant claims because the McMaster apparatus creates tensile stresses only, and/or that the impulse energy created by the claimed apparatus is distinct from the vibrations

or oscillations created by the McMaster apparatus. Applicant's arguments have been carefully considered, but are not persuasive of patentability because:

a) With regard to tensile stress, the examiner respectfully disagrees with applicant on this point. McMaster recites creating compressive stresses at several points, e.g. column 2, line 74, column 3, line 8, or column 4, line 16.

b) With regard to impulse energy, the oscillations of McMaster can be looked at as "repetitive impulse energy" having a regular period, and nothing in the instant claims would contradict the use of an apparatus that creates regular period impulses.

5. Claim 39 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

6. THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to George Wyszomierski whose telephone number is (703) 308-2531. The examiner can normally be reached on Monday thru Friday from 8:00 a.m. to 4:30 p.m. Eastern time.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy King, can be reached on (703) 308-1146. Effective October 1, 2003, all patent application related correspondence transmitted by facsimile must be directed to the central facsimile number, (703) 872-9306. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0661.

GEORGE WYSZOMIERSKI
PRIMARY EXAMINER

GPW
November 18, 2003